WHAT IS CLAIMED IS:

1. A ceramic carrier capable of supporting a catalyst component directly on the surface of a substrate ceramic provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as gas flow passage, wherein said cell wall has irregular surface.

2. The ceramic carrier according to claim 1, wherein said cell wall surface is corrugated or roughened.

3. The ceramic carrier according to claim 2, wherein said corrugated surface has a pitch which is not larger than the length of the carrier.

4. The ceramic carrier according to claim 2, wherein the pitch of said corrugated surface is 20 mm or less.

5. The ceramic carrier according to claim 2, wherein the pitch of said corrugated surface is 5 mm or less.

6. The ceramic carrier according to claim 2, wherein amplitude of said corrugated surface is 1/2 of the cell pitch or smaller.

7. The ceramic carrier according to claim 2, wherein amplitude of said corrugated surface is in a range from 1/3 to 1/2 of the cell pitch.

8. The ceramic carrier according to claim 1, wherein a plurality of projections are provided which protrude inward from said cell wall surface.

9. The ceramic carrier according to claim 8, wherein cross sectional area of said projection is 1/2 of the opening area of the cell or smaller.

10. The ceramic carrier according to claim 8, wherein cross sectional area of said projection is in a range from 1/20 to 1/3 of the opening area of the cell.

11. A ceramic carrier capable of supporting a catalyst component directly on the surface of a substrate ceramic provided with a multitude of cells which are

substantially parallel to each other with the inside thereof serving as gas flow passage, wherein said gas flow passage is not straight.

12. The ceramic carrier according to claim 11, wherein said multitude of cells are warped in the direction of flow.

13. The ceramic carrier according to claim 11, wherein said carrier has radius of curvature not larger than 100 m.

14. The ceramic carrier according to claim 11, wherein said carrier has radius of curvature not larger than 10 m.

15. The ceramic carrier according to claim 11, wherein said carrier has radius of curvature which is in a range from 200 to 500 mm.

16. The ceramic carrier according to claim 11, wherein said multitude of cells are curved in spiral in the direction of flow.

17. The ceramic carrier according to claim 11, wherein the gas flow passage rotates by 0.1 degrees or more per 1 m of said carrier.

18. The ceramic carrier according to claim 11, wherein the gas flow passage rotates by one turn or more per 1 m of said carrier.

19. The ceramic carrier according to claim 11, wherein the gas flow passage rotates by two to four turns per 1 m of said carrier.

20. A ceramic carrier capable of supporting a catalyst component directly on the surface of a substrate ceramic provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as gas flow passage, wherein said cells have cross section in a shape of polygon, L-shaped, convex, cross, S-shaped, dumbbell configuration or a combined shape thereof.

21. A ceramic carrier capable of supporting a catalyst component directly on the surface of a substrate

ceramic provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as gas flow passage, wherein the multitude of cell have a multitude of through holes formed in the cell wall.

22. The ceramic carrier according to claim 21, wherein length of said through hole in the direction of flow is five times the cell pitch or smaller.

23. The ceramic carrier according to claim 21, wherein length of said through hole in the direction of flow is not larger than the cell pitch.

24. The ceramic carrier according to claim 21, wherein width of said through hole in the direction perpendicular to the flow passage is smaller than the cell pitch.

25. A ceramic carrier capable of supporting a catalyst component directly on the surface of a substrate ceramic wherein a porosity of said substrate ceramic is 5% or higher.

26. The ceramic carrier according to claim 25, wherein the porosity of said substrate ceramic is 10% or higher.

27. The ceramic carrier according to claim 25, wherein the porosity of said substrate ceramic is 30% or higher.

28. A ceramic carrier capable of supporting a catalyst component directly on the surface of a substrate ceramic provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as gas flow passage, wherein density of the cells is $50/in^2$ or higher.

29. The ceramic carrier according to claim 28, wherein said density of the cells is $100/in^2$ or higher.

30. The ceramic carrier according to claim 28, wherein said density of the cells is $400/in^2$ or higher.

31. A ceramic carrier which has a multitude of cells disposed substantially parallel to each other with

the inside thereof serving as gas flow passage, wherein a plurality of ceramic carriers capable of supporting a catalyst component directly on the surface of substrate ceramic are disposed in series in the direction of gas flow, and the cell walls of said plurality of ceramic carriers are disposed so as to be discontinuous at the joint.

32. The ceramic carrier according to claim 1, wherein one or more constituent element of the substrate ceramic is substituted with an element other than the constituent element, and the carrier is made capable of supporting the catalyst component directly on the substituting element.

33. The ceramic carrier according to claim 32, wherein said catalyst component is supported on the substituting element by a chemical bond.

34. The ceramic carrier according to claim 32, wherein said substituting element is one or more element having d or f orbits in the electron orbits thereof.

35. The ceramic carrier according to claim 1, which has a multitude of pores capable of supporting the catalyst component directly on the surface of the substrate ceramic, wherein the catalyst component can be supported directly in the pores.

36. The ceramic carrier according to claim 35, wherein said pores comprise at least one kind selected from among a group consisting of defects in the ceramic crystal lattice, microscopic cracks in the ceramic surface and missing defects of the elements which constitute the ceramic.

37. The ceramic carrier according to claim 36, wherein width of said microscopic cracks is 100 nm or less.

38. The ceramic carrier according to claim 36, wherein said pores have diameter or width 1000 times the diameter of the catalyst ion to be supported or smaller, and the density of said pores is 1×10^{11}/L or higher.

39. The ceramic carrier according to claim 36, wherein said substrate ceramic includes cordierite as the main component, and said pores comprise defects formed by substituting a part of the constituent elements of the cordierite with metal element having different value of valence.

40. The ceramic catalyst body according to claim 39, wherein said defects comprise at least one kind, an oxygen defect or a lattice defect, and the density of cordierite crystal which includes at least one defect in a unit crystal lattice of cordierite is set to 4×10^{-6} % or higher.

41. A ceramic catalyst body which is constituted from the ceramic carrier of claim 1 and has a catalyst component supported directly thereon without forming a coating layer.